

NSLS OHSAS Job Risk Assessment

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Name(s) of Risk Team Members: Bob Casey, Ron Beauman, Mike Schwarz, Lenny Santangelo		Point Value → Parameter ↓	1	2	3	4	5
Job Title: Work with Cooling Water Systems Job Number or Job Identifier: LS-JRA-0012		Frequency (B)	≤once/year	≤once/month	≤once/week	≤once/shift	>once/shift
Job Description: Much NSLS equipment requires cooling to reduce heat loads generated during operation. This JRA addresses hazards associated with installation and maintenance of the mechanical equipment associated with cooling water systems		Severity (C)	First Aid Only	Medical Treatment	Lost Time	Partial Disability	Death or Permanent Disability
Training and Procedure List (Optional):		Likelihood (D)	Extremely Unlikely <<1x/20yrs	Unlikely 1x/10-20yrs	Possible >1x/10-20yrs	Probable 1x/yr	Multiple >1x/yr
Approved by: W. R. Casey Date: 10/24/05 Rev. # 1 Revision Log							
Stressors (if applicable, please list all): work in warm environments and tight quarters; work in wet floor and surfaces			Reason for Revision (if applicable):			Comments:	

[illegible]

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Job Step / Task	Hazard	Before Controls						Initial Controls	After Initial Controls					Control(s) Added to Reduce Risk	After Additional Controls					
		Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD		# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD		# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD	% Risk Reduction
chemicals, including strong acids and caustics																				
Work with hand tools	See LS-JRA-0014																			
Work with hand held power tools	See LS-JRA -0013																			
Work with pressurized systems	See LS-JRA -0009																			
Discharge of water to sanitary sewer (this hazard is environmental and was not scored.)	Release of chemicals above discharge limit							Training, procedures												
Installation, operation, or maintenance of mechanical equipment & systems	Work in warm environment resulting in potential for heat exhaustion	N	2	3	3	4	72	Safety awareness, training	2	3	3	3	54							
Installation, operation, or maintenance of mechanical equipment & systems	Injury from rotating parts	N	1	3	3	4	36	Guards, procedures, safety awareness	1	3	3	3	27							

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Job Step / Task	Hazard	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD	Initial Controls	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD	Control(s) Added to Reduce Risk	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD	% Risk Reduction
Installation, operation, or maintenance of mechanical equipment & systems	Slip or fall caused by water leak	N	1	5	3	3	45	Safety awareness, procedures	1	5	3	2	30							
Installation, operation, or maintenance of mechanical equipment & systems	Exposure to noise levels above limits	N	4	5	4	4	320	Monitoring, posting, training, protective ear plugs, safety awareness	4	4	1	2	32							
Installation, operation, or maintenance of mechanical equipment & systems	Electric shock	N	1	5	5	2	50	Procedures, training, barriers, design, safety awareness	1	5	5	1	25							
Installation, operation, or maintenance of mechanical equipment & systems	Work in tight spaces resulting in strains or bruises from unusual body positions or contortions	Y	1	4	3	4	48	safety awareness, discussion of past experience	1	4	3	3	36							
Installation, operation, or maintenance of mechanical equipment & systems	Injury to back or other body part from lifting or over-exertion	N	1	4	3	3	36	Training, safety awareness, appropriate equipment, design	1	4	3	2	24							

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		Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD		# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD		# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD	% Risk Reduction
Installation, operation, or maintenance of mechanical equipment & systems	Thermal burns resulting from hot and cold surfaces	N	1	5	2	3	30	Training, proper labeling, safety awareness, proper clothing	1	5	2	3	30							
Installation, operation, or maintenance of mechanical equipment & systems	Cuts, abrasions, pinch and other minor injuries	N	1	4	2	4	32	Safety awareness, PPE	1	4	2	3	24							
Installation, operation, or maintenance of mechanical equipment & systems	Fall from elevated platforms	Y	1	3	5	3	45	Work planning, guards, safety awareness, fall protection	1	3	5	2	30							
Maintenance or repair of water tower	Exposure to chemicals and bacteria associated with standard cooling tower application	N	2	2	3	3	36	Procedures, safety awareness, training	2	2	3	2	24							
Installation, operation, or maintenance of mechanical equipment & systems	Thermal burns resulting from soldering, welding, and or brazing	N	1	3	3	3	27	Training, safety awareness, proper clothing	1	3	3	2	18							
Installation, operation, or	Oxygen deficiency due to release of gases	N	2	5	5	2	100	Training, monitoring, design reviews,	2	5	5	1	50							

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Job Step / Task	Hazard	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD	Initial Controls	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD	Control(s) Added to Reduce Risk	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD	% Risk Reduction		
maintenance of mechanical equipment & systems								ventilation systems														
Further Description of Controls Added to Reduce Risk:																						
*Risk:	0 to 20 Negligible	21 to 40 Acceptable						41 to 60 Moderate					61 to 80 Substantial					81 or greater Intolerable				